THAT WHICH IS CLAIMED IS:

1. An electrical apparatus comprising:

a rectifying wheel comprising a plurality of rectifying diodes and a plurality of fuses associated therewith, each fuse comprising

a housing,

a fuse element carried by said housing, and

a pop-out indicator movable between a normal position and a popped-out position extending outwardly from said housing responsive to failure of said fuse element to thereby indicate a blown fuse; and

at least one stationary proximity sensor mounted adjacent said rectifying wheel for sensing positions of said pop-out indicators without contact therewith during rotation of said rectifying wheel to thereby sense at least one blown fuse.

2. The electrical apparatus according to Claim 1 further comprising:

a local display; and

a controller connected to said at least one stationary proximity sensor for generating an indication of at least one blown fuse on said local display.

3. The electrical apparatus according to Claim 2 wherein said controller generates at least one remote output.

4. The electrical apparatus according to Claim 2 wherein said plurality of fuses are connected in respective groups of fuses for each phase; and wherein said controller determines multiple blown fuses for each given phase.

5. The electrical apparatus according to Claim 4 wherein said controller generates an alarm indication based upon a predetermined number of blown fuses for each given phase.

6. The electrical apparatus according to Claim 4 wherein said controller determines multiple blown fuses for each given phase without angular position sensing of said rectifying wheel.

7. The electrical apparatus according to Claim 4 wherein said controller determines multiple blown fuses for each given phase with angular position sensing of said rectifier wheel.

8. The electrical apparatus according to Claim 1 wherein said at least one stationary proximity sensor comprises at least one magnetic proximity sensor.

9. The electrical apparatus according to Claim 1 wherein said at least one stationary proximity sensor comprises at least one optical proximity sensor.

10. The electrical apparatus according to Claim 1 wherein said at least one stationary proximity sensor comprises at least one electric field proximity sensor.

11. The electrical apparatus according to Claim 1 wherein said at least one stationary proximity sensor comprises at least one ultrasonic proximity sensor.

12. The electrical apparatus according to Claim 1 wherein said at least one stationary proximity sensor comprises at least one infrared proximity sensor.

13. The electrical apparatus according to Claim 1 further comprising:

a shaft connected to said rectifying wheel;

an exciter rotor carried by said shaft; and

a exciter stator surrounding said exciter rotor.

14. A blown fuse sensing apparatus for use with a rectifying wheel comprising a plurality of rectifying diodes and a plurality of fuses associated therewith, with each fuse comprising a housing, a fuse element carried by the housing, and a pop-out indicator movable between a normal position and a popped-out position extending outwardly from the housing responsive to failure of the fuse element to thereby indicate a blown fuse, the blown fuse sensing apparatus comprising:

at least one stationary proximity sensor mounted adjacent the rectifying wheel for sensing positions of the pop-out indicators without contact therewith during rotation of the rectifying wheel to thereby sense at least one blown fuse;

a local display; and

a controller connected to said at least one stationary proximity sensor for generating an indication of at least one blown fuse on said local display.

15. The blown fuse sensing apparatus according to Claim 14 wherein said controller generates at least one remote output.

16. The blown fuse sensing apparatus according to Claim 14 wherein the plurality of fuses are connected in respective groups of fuses for each phase; and wherein said controller determines multiple blown fuses for each given phase.

17. The blown fuse sensing apparatus according to Claim 16 wherein said controller generates an alarm indication based upon a predetermined number of blown fuses for each given phase.

18. The blown fuse sensing apparatus according to Claim 16 wherein said controller determines multiple blown fuses for each given phase without angular position sensing of the rectifying wheel.

19. The electrical apparatus according to Claim 16 wherein said controller determines multiple blown fuses for each given phase with angular position sensing of said rectifier wheel.

20. The blown fuse sensing apparatus according to Claim 14 wherein said at least one stationary proximity sensor comprises at least one magnetic proximity sensor.

21. The blown fuse sensing apparatus according to Claim 14 wherein said at least one stationary proximity sensor comprises at least one optical proximity sensor.

22. The blown fuse sensing apparatus according to Claim 14 wherein said at least one stationary proximity sensor comprises at least one electric field proximity sensor.

23. The blown fuse sensing apparatus according to Claim 14 wherein said at least one stationary proximity sensor comprises at least one ultrasonic proximity sensor.

24. The blown fuse sensing apparatus according to Claim 14 wherein said at least one stationary proximity sensor comprises at least one infrared proximity sensor.

25. A method of sensing at least one blown fuse of a rectifying wheel comprising a plurality of rectifying diodes and a plurality of fuses associated therewith, with each fuse comprising a housing, a fuse element carried by the housing, and a pop-out indicator movable between a normal position and a popped-out position extending outwardly from the housing responsive to failure of the fuse element to thereby indicate a blown fuse, the method comprising:

mounting at least one stationary proximity sensor adjacent the rectifying wheel for proximity sensing positions of the pop-out indicators without contact therewith during rotation of the rectifying wheel to thereby sense at least one blown fuse.

26. The method according to Claim 25 further comprising providing a local display and connecting a controller to the at least one stationary proximity sensor for generating an indication of at least one blown fuse on the local display.

27. The method according to Claim 26 further comprising using the controller to generate at least one remote output.

28. The method according to Claim 26 wherein the plurality of fuses are connected in respective groups of fuses for each phase; and further comprising using the controller to determine multiple blown fuses for each given phase.

29. The method according to Claim 28 further comprising using the controller to generate an alarm indication based upon a predetermined number of blown fuses for each given phase.

30. The method according to Claim 28 further comprising using the controller to determine multiple blown fuses for each given phase without angular position sensing of the rectifying wheel.

31. The method according to Claim 28 further comprising using the controller to determine multiple blown fuses for each given phase with angular position sensing of the rectifying wheel.

32. The method according to Claim 25 wherein the at least one stationary proximity sensor comprises at least one of a magnetic proximity sensor, an optical proximity sensor, an electric field proximity sensor, an ultrasonic proximity sensor, and an infrared proximity sensor.